

# TRENCH TYPE BURIED ON-CHIP PRECISION PROGRAMMABLE RESISTOR

## Abstract

An on-chip, ultra-compact, and programmable semiconductor resistor device and device structure and a method of fabrication.

Each semiconductor resistor device structure is formed of one or more conductively connected buried trench type resistor elements exhibiting a precise resistor value. At least two semiconductor resistor device structures may be connected in series or in parallel configuration through the intermediary of one or more fuse devices that may be blown to achieve a desired total resistance value.